WHAT IS CLAIMED IS:

1.   A genetic design method comprising the steps of:

selecting parent profiles;

dividing each of the parent profiles into surface segments and glue segments, each of the segments having a length, an height, and an asymmetry attribute, each of the surface segments further having an angle attribute, and each of the glue segments further having a radius attribute;

maintaining merit values for each of the segments and for each of the attributes of each of the segments; and

evolving the parent profiles to produce offspring profiles based on the merit values.

2.   A genetic design method as claimed in claim 1, wherein said step of evolving includes a probabilistic recombination algorithm which selects for each of the attributes at least one of a random value and a value of the attribute associated with one of the parent profiles depending on a non-linear importance function based on the merit values.

3.   A genetic design method as claimed in claim 1, wherein the merit values include:

a segment age for each of the segments which measures time, in generations, that the segment continues to exist;

a user-set attribute age for each of the attributes of each of the segments which measures time, in generations, that the attribute having a value set by an user lasts unchanged;

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a program-defined attribute age for each of the attributes of each of the segments which measures time, in generations, that the attribute having a randomly set value lasts unchanged;

a survival time for each of the segments and for each of the attributes of each of the segments which measures time, in generations, that the respective segment and attribute remains unchanged after user modification of a region of the profile including the segment; and

a modify time for each of the segments and for each of the attributes of each of the segments which measures frequency of modification of the respective segment and attribute.

4.   A genetic design method as claimed in claim 1,

further comprising the step of modifying at least one of the length, height, asymmetry, and angle attribute for at least one of the segments, and

wherein said step of maintaining updates the merit values after said step of modifying.

5.   A genetic design method as claimed in claim 1,

wherein the segments are local concepts;

further comprising the step of aggregating a set of the local concepts to define a higher level concept; and

wherein said step of maintaining updates the merit values for the local concepts and for the higher level concept.

6.   A genetic design method as claimed in claim 5, wherein the merit values include:

a concept age for each of the local concepts and higher level concepts which measures time, in generations, that the concept continues to exist;

a user-set attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a value set by an user lasts unchanged;

a program-defined attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a randomly set value lasts unchanged;

a survival time for each of the concepts and for each of the attributes of each of the concepts which measures time, in generations, that the respective concept and attribute remains unchanged after user modification of a region of the profile including the concept; and

a modify time for each of the concepts and for each of the attributes of each of the concepts which measures frequency of modification of the respective concept and attribute.

7.   A genetic design method as claimed in claim 1,

wherein the segments are local concepts;

further comprising the step of defining global concepts which pertain to overall aspects of the profiles; and

wherein said step of maintaining updates the merit values for the local concepts and for the global concepts.

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8.   A genetic design method as claimed in claim 7, wherein the merit values include:

a concept age for each of the local concepts and global concepts which measures time, in generations, that the concept continues to exist;

a user-set attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a value set by an user lasts unchanged;

a program-defined attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a randomly set value lasts unchanged;

a survival time for each of the concepts and for each of the attributes of each of the concepts which measures time, in generations, that the respective concept and attribute remains unchanged after user modification of a region of the profile including the concept; and

a modify time for each of the concepts and for each of the attributes of each of the concepts which measures frequency of modification of the respective concept and attribute.

9.   A genetic design method as claimed in claim 1, further comprising the step of generating a family tree identifying successive generations of the parent and offspring profiles.

10.   A genetic design method as claimed in claim 1, further comprising the steps of:

generating a family tree identifying successive generations of the parent and offspring profiles; and

displaying the parent profiles, the offspring profiles, and the family tree.

11.   A genetic design method as claimed in claim 1, further comprising the step of displaying at least one of the parent profiles and the offspring profiles as three-dimensional images.

12.   A genetic design method as claimed in claim 1, wherein the profiles represent an outline of a structure.

13.   A genetic design method as claimed in claim 1, wherein the segments of the profiles represent curves and lines of contours of externally visible components of a structure.

14.   A genetic design method as claimed in claim 1, wherein the profiles are of an automobile.

15.   A genetic design apparatus comprising:

a selection device for selecting parent profiles;

a segmentation unit to divide each of the parent profiles into surface segments and glue segments, each of the segments having a length, an height, and an asymmetry attribute, each of the glue segments further having an angle attribute;

a merit value monitor to maintain merit values for each of the segments and for each of the attributes for each of the segments; and

a genetic evolution unit to evolve the parent profiles to produce offspring profiles based on the merit values.

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16.   A genetic design apparatus as claimed in claim 15, wherein said genetic evolution unit includes a probabilistic recombination algorithm which selects for each of the attributes at least one of a random value and a value of the attribute associated with one of the parent profiles depending on a non-linear importance function based on the merit values.

17.   A genetic design apparatus as claimed in claim 15, wherein the merit values include:

a segment age for each of the segments which measures time, in generations, that the segment continues to exist;

a user-set attribute age for each of the attributes of each of the segments which measures time, in generations, that the attribute having a value set by an user lasts unchanged;

a program-defined attribute age for each of the attributes of each of the segments which measures time, in generations, that the attribute having a randomly set value lasts unchanged;

a survival time for each of the segments and for each of the attributes of each of the segments which measures time, in generations, that the respective segment and attribute remains unchanged after user modification of a region of the profile including the segment; and

a modify time for each of the segments and for each of the attributes of each of the segments which measures frequency of modification of the respective segment and attribute.

18.   A genetic design apparatus as claimed in claim 15,

further comprising a modification unit to modify at least one of the length, height,

asymmetry, and angle attribute for at least one of the segments, and

wherein said merit value monitor updates the merit values after modification by said

modification unit.

19.   A genetic design apparatus as claimed in claim 15,

wherein the segments are local concepts;

further comprising a modification unit to aggregate a set of the local concepts to define a

higher level concept; and

wherein said merit value monitor updates the merit values for the local concepts and the

higher level concept.

20.   A genetic design apparatus as claimed in claim 19, wherein the merit values

include:

a concept age for each of the local concepts and higher level concepts which measures time,

in generations, that the concept continues to exist;

a user-set attribute age for each of the attributes of each of the concepts which measures

time, in generations, that the attribute having a value set by an user lasts unchanged;

a program-defined attribute age for each of the attributes of each of the concepts which

measures time, in generations, that the attribute having a randomly set value lasts unchanged;

a survival time for each of the concepts and for each of the attributes of each of the concepts which measures time, in generations, that the respective concept and attribute remains unchanged after user modification of a region of the profile including the concept; and

a modify time for each of the concepts and for each of the attributes of each of the concepts which measures frequency of modification of the respective concept and attribute.

21.   A genetic design apparatus as claimed in claim 15,

wherein the segments are local concepts;

further comprising a modification unit to define global concepts which pertain to overall aspects of the profiles; and

wherein said merit value monitor updates the merit values for the local concepts and for the global concepts.

22.   A genetic design apparatus as claimed in claim 21, wherein the merit values include:

a concept age for each of the local concepts and global concepts which measures time, in generations, that the concept continues to exist;

a user-set attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a value set by an user lasts unchanged;

a program-defined attribute age for each of the attributes of each of the concepts which measures time, in generations, that the attribute having a randomly set value lasts unchanged;

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a survival time for each of the concepts and for each of the attributes of each of the concepts which measures time, in generations, that the respective concept and attribute remains unchanged after user modification of a region of the profile including the concept; and

a modify time for each of the concepts and for each of the attributes of each of the concepts which measures frequency of modification of the respective concept and attribute.

23.   A genetic design apparatus as claimed in claim 15, further comprising a family tree generator to generate a family tree identifying successive generations of the parent and offspring profiles.

24.   A genetic design apparatus as claimed in claim 15, further comprising:

a family tree generator to generate a family tree identifying successive generations of the parent and offspring profiles; and

a display to display the parent profiles, the offspring profiles, and the family tree.

25.   A genetic design apparatus as claimed in claim 15, further comprising a three-dimensional display to display at least one of the parent profiles and the offspring profiles as three-dimensional images.

26.   A genetic design apparatus as claimed in claim 15, wherein the profiles represent an outline of a structure.

27. A genetic design apparatus as claimed in claim 15, wherein the segments of the profiles represent curves and lines of contours of externally visible components of a structure.

28. A genetic design apparatus as claimed in claim 15, wherein the profiles are of an automobile.